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EXAMINER

HUYNH, SON P

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/633,197	Applicant(s) GOODE, CHRISTOPHER W.B.	
	Examiner Son P. Huynh	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,8,9,11-17,19,22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,8,9,11-17,19,22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's arguments with respect to claims 1-2, 4-6, 8-9, 11-17, 19, 22-23 have been considered but are moot in view of the new ground(s) of rejection.

Claims 3, 7, 10, 18, 20-21 have been canceled.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 6, 8-9, 13-16, 19, 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sie et al. (6,973,662) in view of Thomas Huston et al. (US 2002/0007402)-hereinafter referred to as Thomas, and further in view of Gordon (5,920,700).

Regarding claim 1, Sie discloses a method, comprising cable television provider (program server, subscriber server, subscriber management system, program request database, transmission system – figures 1, 14-16) that receives content from a plurality of content providers such as providers for providing commercial supported channel, providers for providing commercial free channels, providers for supplying video on demand, etc. (figure 1, col. 4, lines 11-36). The content from these providers are provided to cable television provider and stored at in mass storage device of program server located at the cable television provider including node that services many different user locations (figures 14-16, col. 4, lines 11-20, lines 63-67; col. 19, line 15-col. 20, line 40). Each digital channel is stored in different disk drive or a respective surface of the platter in a single disk (col. 19, line 16-col. 20, line 39). The cable TV operator control select circuit such as stored multi channel program stream (col. 18, lines 56-59). Thus, Sie discloses a method comprising:

establishing, by a cable television system operator (cable TV operator at the cable television provider (including node that services many different user locations – see include, but is not limited to, col. 20, lines 35-39), a resource with each of at least one content provider (disk drive or platter in the storage assigned to respective digital channel of additional content provider – see include, but is not limited to, col. 20, lines 18-34), each content provider storing at least some of a plurality of video assets within the resource at at least one cable television system operator location, a resource comprises a memory resource (each content provider provides content on digital

channel for storing in respective disk drive or platter of the storage, storage comprises memory resource for storing data from digital channel- see include, but is not limited to col. 20, lines 18-34);

fulfilling subscriber requests for available content stored at the at least one cable television system operator location, the fulfilling comprising providing the subscriber request to the subscriber over a cable television delivery system (the cable television provider receives request from subscribers at the set top box, processing the requests and provides the requested program to the subscribers over cable television delivery system (108) – see including, but are not limited to, figures 1, 14-16, col. 4, line 37-col. 5, line 18);

generating usage statistics and content centric data (generating reports usage and things as name, address, membership history, program usage by class of program, or viewing habit information, etc. – see include, but are not limited to, col. 4, lines 37-62, col. 5, lines 50-60, col. 23, lines 50-58);

selecting, according to the at least one content provider, which video assets are stored in the resource (selecting digital channel corresponding to at least one content provider to be stored in respective disk drive or platter – see include, but is not limited to, col. 20, lines 25-40).

Sie does not specifically discloses the resource (disk drive or platter) for storing content in the video server is leased to content provider, the resource lease determines a size of at least one partition assigned to the at least one content provider; usage statistic comprises data relating operation of the leased resource and the content centric

data comprises data related to consumption of content; usage statistic and content centric data are provided to at least one content provider, increasing and decreasing a capability of the memory resource in response to the usage statistic, and adapting the content in a at least one partition based on the usage statistic and content centric data.

Thomas discloses a system wherein transmission media includes coaxial cables, copper wire and fiber optic, etc. (paragraph 0084), Thomas further discloses content provider is informed by the access provider of the usage statistic/requests of the content (paragraphs 0064-0072) and/or providing access statistics to content provider about how their content is accessed by users (paragraph 0091- see also the provisional application 60176,666, provided in the advisory –hereinafter referred to as provisional application: page 4, paragraph 2, page 14, paragraph 5). Thus, the usage statistic and content centric data (usage statistic/request/access statistic about how the content is access by the user are generated and provided to the content provider; Thomas further discloses the access provider guarantee a minimum amount of space/rent space to particular content provider according to an agreement with an access provider to host the content provider's content on traffic server. The content provides content for storing in the allocated space (paragraphs 0063, 0066, provisional application: page 4, paragraph 1). Thus, the operator at service provider (e.g., operator at access provider and/or original server and/or traffic server) establishes a resource lease (allocated space) with each of at least one content provider, and each content provider storing

content within the leased resource at the service provider operator location (store content in allocated space).

Thomas discloses the access provider also provides information on cache access rates so the content provider can track how often the content is accessed (page 3). Billing can be done using a variety of method, including number of bytes served, amount of storage reserved and used, duration of the storage, and transfer rate; access statistics is provided to the content provider. By collecting cache hit information, the hoster or access provider can provide an accurate picture of which data is being accessed and how often (page 4). Thus, the usage statistics comprises data relating to operation of the leased resource (e.g., data relating to operation of rent cached/rent space such as data relating to cache hit information, amount of storage reserved and used, transfer rate, cache access rate, etc.) and the content centric data comprises data related to consumption of content (e.g., how often the data in the cache is accessed, cache hit information, etc.).

Thomas further discloses content provider contracts with an access provider to store/cache content at the access provider. In return, the access provider makes a certain number of caches available, and allows the content provider to control when and what content should be reserved. The amount of data served is the basis for the billing arrangement performance between the content provider and access provider. Billing can be done using a variety of methods, including number of bytes served, **amount of storage reserved and used**, duration of storage... (pages 3-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include

that the resource lease determines a size of at least one partition assigned to the at least one content provider (for example, the access provider assigns larger amount of storage reserved/cache space to content provider who pays higher amount of money to the access provider compared to other content providers) in order to yield predictable result such as improving satisfaction of content providers according to their demands.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sie to use the teaching as obviously taught by Thomas in order to allow content providers to better manage their content (paragraph 0016, lines 8-11).

Thomas discloses providing the access statistics including content centric data are provided to content providers allows the content providers to better manage their content (see include, but is not limited to, paragraph 0016). However, Sie in view of Thomas does not explicitly disclose increasing and decreasing a capability of the memory resource in response to the usage statistic, and adapting the content in at least one partition based on the usage statistic and content centric data.

Gordon discloses increasing and decreasing a capability of the memory resource in response to the usage statistic and content centric data and adapting the content in at least one partition based on usage statistics and content centric data (increasing and decreasing the number of copies of any video asset in response to usage statistic and providing more copies for particular asset if it is high demand/popular and reduce a number of copies of particular asset if it is unused/low demand— see including, but is not limited to, col. 8, line 40- col. 9, line 13). Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to modify Sie in view of Thomas to use the teaching as taught by Gordon in order to improve efficiency in data transmission (for example: minimizing video asset data blocked down during peak time and reduce delay time to provide requested data to subscribers (col. 2, line 60-col. 3, line 10)).

Regarding claim 2, Sie in view of Thomas and Gordon discloses a method as discussed in the rejection of claim 1. Sie further discloses generating service centric data (i.e. membership privileges, membership history, program usage by class of program, etc. – col. 4, lines 37-62); Gordon further discloses tracking bandwidth available at each server, location of particular copy, available storage space, and user demand for particular program and providing video content according these information (col. 3, line 45-67, col. 4, line 59-col. 5, line 63; col. 8, line 40-col. 9, line 13) broadly read on generating service centric data and adapting service operation according t the usage statistics and the service centric data.

Regarding claim 6, Sie in view of Thomas and Gordon discloses a method as discussed in the rejection of claim 1. Thomas further disclose deleting particular content if it remains in cache in a specified time without a request for the particular content (par. 0056), or pre-fetch content according to a user and content specific basic (par. 0056-par. 0058) reads on the claimed limitation “said leased resource is adapted in response to said usage statistics”

Regarding claim 8, the limitation as claimed correspond to the limitation of claim 1 and are analyzed as discussed with respect to the rejection of claim 1, wherein the limitation "assigning" correspond to the limitation "establishing", and the plurality of content providers reads on content providers for providing commercial supported channels, commercial free channels, pay per view, video on demand, etc. (Sie, col. 4, lines 21-35).

Regarding claim 9, the additional limitations as claimed correspond to the additional limitations as claimed in claim 2, and are analyzed as discussed with respect to the rejection of claim 2.

Regarding claim 13, Sie discloses apparatus (television cable provider/node services many different user location – see include, but is not limited to, col. 20, lines 35-39) coupled to a plurality of subscribers (at the set top boxes) and to content suppliers (content providers such as providers of commercial supported channels, provider of commercial free channels, providers of video on demand, etc. – col. 4, lines 20-36, figure 1-3, 14-16), the apparatus comprising:

a server complex (i.e. program server – figures 1, 14-16) at a cable television system operator location (at the cable television provider/node – figure 1, col. 20, lines 35-39), comprising a plurality of partitions (plurality of disk drives or platters), each of the partitions storing video assets provided by respective content suppliers (each disk

drive or platter stores video assets of digital channel correspond to respectively content providers – col. 4, lines 20-36; col. 19, line 16-col. 21, line 6). Sie further discloses the control circuit that controls the operations of the cable television provider including controlling distribution of the video assets through a cable television delivery system, selecting which of the video assets are stored in the respective partition in response to the content supplier (see include, but are not limited to, figures 1, 14-16; col. 19, line 16-col. 21, line 6). However, Sie does not explicitly disclose a size of each one of the plurality of partitions assigned a respective content supplier is determined by a resource lease, wherein the usage statistics comprise data relating to operation of the server complex and the content centric data comprises data related to consumption of content; providing usage statistics and content centric data to the content suppliers, increasing and decreasing a capability of at least one partition in response to usage statistic, adapting the content in a at least one partition based on the usage statistic and content centric data.

Thomas discloses a system wherein transmission media includes coaxial cables, copper wire and fiber optic, etc. (paragraph 0084), Thomas further discloses content provider is informed by the access provider of the usage statistic/requests of the content (paragraphs 0064-0072) and/or providing access statistics to content provider about how their content is accessed by users (paragraph 0091- see also the provisional application 60176,666, provided in the advisory –hereinafter referred to as provisional application: page 4, paragraph 2, page 14, paragraph 5). Thus, the usage statistic and

content centric data (usage statistic/request/access statistic about how the content is access by the user are generated and provided to the content suppliers; Thomas further discloses the access provider guarantee a minimum amount of space/rent space to particular content provider according to an agreement with an access provider to host the content provider's content on traffic server. The content provides content for storing in the allocated space (paragraphs 0063, 0066, provisional application: page 4, paragraph 1). Thus, the content is selected to be stored in a partition (allocated space) in response to the content suppliers.

Thomas also discloses the access provider also provides information on cache access rates so the content provider can track how often the content is accessed (page 3). Billing can be done using a variety of method, including number of bytes served, amount of storage reserved and used, duration of the storage, and transfer rate; access statistics is provided to the content provider. By collecting cache hit information, the hoster or access provider can provide an accurate picture of which data is being accessed and how often (page 4). Thus, the usage statistics comprises data relating to operation of the server complex (e.g., data relating to operation of access provider such as cache hit information, amount of storage reserved and used, transfer rate, cache access rate, etc.) and the content centric data comprises data related to consumption of content (e.g., how often the data in the cache is accessed, cache hit information, etc.).

Thomas further discloses content provider contracts with an access provider to store/cache content at the access provider. In return, the access provider makes a

certain number of caches available, and allows the content provider to control when and what content should be reserved. The amount of data served is the basis for the billing arrangement performance between the content provider and access provider. Billing can be done using a variety of methods, including number of bytes served, **amount of storage reserved and used**, duration of storage... (pages 3-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in Thomas that a size of each one of the plurality partitions assigned a respective content supplier is determined by a resource lease (for example, amount of storage reserved/cache space assigned to respective to content provider is determined by rent space/ storage reserved according to demand of content providers) in order to yield predictable result such as improving satisfaction of content providers according to their demands.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sie to use the teaching as obviously taught by Thomas in order to allow content providers to better manage their content (paragraph 0016, lines 8-11).

Thomas discloses providing the access statistics including content centric data are provided to content providers allows the content providers to better manage their content (see include, but is not limited to, paragraph 0016). However, Sie in view of Thomas does not explicitly disclose increasing and decreasing a capability of the

memory resource in response to the usage statistic, and adapting the content in a at least one partition based on the usage statistic and content centric data.

Gordon discloses increasing and decreasing a capability of the memory resource in response to the usage statistic and content centric data and adapting the content in at least one partition based on usage statistics and content centric data (increasing and decreasing the number of copies of any video asset in response to usage statistic and providing more copies for particular asset if it is high demand/popular and reduce a number of copies of particular asset if it is unused/low demand— see including, but is not limited to, col. 8, line 40- col. 9, line 13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sie in view of Thomas to use the teaching as taught by Gordon in order to improve efficiency in data transmission (for example: minimizing video asset data blocked down during peak time and reduce delay time to provide requested data to subscribers (col. 2, line 60-col. 3, line 10)).

Regarding claim 14, Sie in view of Thomas and Gordon discloses the apparatus as discussed in the rejection of claim 13. Sie further discloses the cable television provider has control circuit that controls operation of the cable television provider such as interacts with additional content providers in order to supply additional programs to users (col. 4, lines 22-33, figures 14-16). Sie also discloses the storing content from content providers according to user specific information, club specific information, program specific information, usage information, each platter or disk drive store each

digital channel, club members download club programs more quickly, etc. (col. 3, line 65-col. 5, line 4; col. 20, lines 18-67). Thus, content suppliers provision respective server complex partition according to rules implemented by the controller (i.e. download club programs from club program provider to server storage more quickly based on club program information, club member information, etc. stored at the cable television provider).

Regarding claim 15, Sie in view of Thomas and Gordon discloses the apparatus as discussed in the rejection of claim 14. Sie further discloses cable television provider interacts with additional content providers in order to supply additional programs to users (col. 4, lines 22-33), the content provider provides interactive services, home shopping, pay per view, etc. to the cable television provider for later providing to the subscribers at the set top boxes (see including, but is not limited to, figure 1, col. 4, lines 22-35, col. 23, lines 1-58). Inherently, the rules define at least one of navigation parameter (so the cable television provider can interact with content provider), a promotion parameter (so the user can access promotional data such as music videos, preview of pay per view, etc.) and a packaging parameter provided by the content provider.

Regarding claim 16, Sie in view of Thomas and Gordon discloses the apparatus as discussed in the rejection of claim 13. Thomas further discloses the server complex partitions are leased by the content suppliers (content providers rent spaces at access

provider/original provider/cache server - see include, but is not limited to, paragraphs 0063, 0066, provisional application: page 4, paragraph 1).

Regarding claim 19, Sie in view of Thomas and Gordon discloses the apparatus as discussed in the rejection of claim 13. Sie further discloses the controller is coupled by a signal path (i.e. satellite or cable path) to the content provider (figures 1, 14-16, col. 4, lines 20-36). Sie further discloses the content providers provide content such as video on demand, commercial free channels, etc. to cable television system. The cable television provider stores the content from content providers and provides to subscriber upon request (col. 3, line 66-col. 4, line 67; col. 7, lines 3-35). Obviously, the signal path providing rules from the content provider to the controller, the rules defined according to the content provider and comprising pricing rules for the video assets in order that the controller at the cable television provider knows the pay per view program, video on demand program, free program, etc.; The controller is inherently **capable of** distribution of the video assets according to the rules (see MPEG 2114).

Regarding claim 22, Sie in view of Thomas and Gordon discloses the apparatus as discussed in the rejection of claim 1. Sie further discloses the content providers provide content such as video on demand, commercial free channels, etc. to cable television system. The cable television provider stores the content from content providers and provides to subscriber upon request (col. 3, line 66-col. 4, line 67; col. 7, lines 3-35). Thus, the method comprises defining rules for the video asset (i.e. for video on demand,

pay per view, subscriber has to pay for view), the rule comprising pricing rules (i.e. price for each access to video access, or price of additional access; fulfilling subscriber requests for available content stored at the cable television system operator location according to a rule (i.e. fulfilling subscriber request for video on demand stored at the cable television provider according to user membership history, account balance, price of program). It is obvious to one of ordinary skill in the art that the rules comprising pricing rule is provided from content provider to the cable television operation so that the content provider can control the revenue (benefit of particular program).

Regarding claim 23, Sie in view of Thomas and Gordon discloses the apparatus as discussed in the rejection of claim 1. Sie further discloses the source comprises a portion of a server complex having a plurality of resource partitions (tape, or disks, disk drive, buffers, etc. – col. 4, lines 11-21; col. 19, line 15-col. 20, line 39). Thomas further discloses leased resource comprises at least a portion of a server complex having a plurality of resource partitions (allocated space is a portion of memory space at access provider/original server/cache server having a plurality of space portions – see include, but are not limited to, paragraphs 0063, 0066, 0071, provisional application: page 4, paragraph 1, page 14, paragraph 5).

4. Claims 4-5, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sie in view of Thomas and Gordon as applied to claim 1 or claim 8 above, and further in view of Carlin et al. (US 6,119,152).

Regarding claim 4, Sie in view of Thomas and Gordon teaches a method as discussed in the rejection of claim 1. However, Thomas does not specifically disclose remitting compensation to the at least one content provider in response to the usage statistics.

Carlin teaches the owner of multi-provider pay to the provider revenues received from the subscribers (col. 6, lines 30-36) reads on the claimed limitation "remitting compensation to said at least one content provider in response to the usage statistics." Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sie in view of Thomas and Gordon to use the teaching as taught by Carlin in order to provide an alternative way to pay content provider.

Regarding claim 5, Sie in view of Thomas and Gordon teaches a method as discussed in the rejection of claim 4. Carlin further teaches the owner of the multi provider on line service subtracts its fees from the revenues received from the subscribers and pays the difference to the provider (col. 6, lines 30-36) reads on the claimed limitation "said remitted compensation is offset by the value of said lease." Therefore, it would have been obvious to one of ordinary skill in the art to modify Sie in view of Thomas and Gordon to simplify transaction transferring (e.g., the service provider transfers compensation after subtracting all fees that the service provider charges content provider instead of the service provider transfers all revenues to content provider and

then the content provider transfers back the fees that the service provider charges to content provider).

Regarding claims 11-12, the limitations as claimed correspond to the limitations as claimed in claims 4-5 respectively, and are analyzed as discussed with respect to the rejection of claims 4-5.

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sie et al. in view of Thomas and Gordon as applied to claim 13, and further in view of Martin et al. (US 6,606,607).

Regarding claim 17, Sie teaches an apparatus as discussed in the rejection of claim 13. However, Sie in view of Thomas and Gordon does not explicitly disclose auctioning.

Martin discloses system and method for coordinating an auction for an item between a multi auction services (col. 6, lines 44-63). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sie to use the teaching as taught by Martin in order to allow seller to obtain highest price of an item.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Kim et al. (US 6,789,103) discloses synchronized server parameter database.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son P. Huynh whose telephone number is 571-272-7295. The examiner can normally be reached on 9:00 - 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Son P. Huynh

November 15, 2007

